

I CLAIM:

1. A bicycle frame comprising:

a plurality of frame parts which are connected to each other, at least one of said frame parts including a tube body and at least one connection tube projecting from said tube body in a direction different from the direction of extension of said tube body, said at least one of said frame parts being formed via a process which comprises hydraulically forming a one-piece metallic tube blank by introducing a hydraulic pressure into said tube blank to deform and expand said tube blank so as to form at least one expanded wall part projecting from said tube blank in a direction different from the direction of extension of said tube blank, and machining said expanded wall part to form said connection tube.

2. The bicycle as claimed in Claim 1, wherein said at least one of said frame parts is made of an aluminum alloy.

3. The bicycle frame as claimed in Claim 1, wherein said frame parts comprise:

a cross bar;

a down tube;

a seat tube;

a first connector connecting said cross bar to said seat tube;

a second connector fixed to said seat tube opposite to said first connector and connecting said seat tube to said down tube; and

a head tube connected to said cross bar and said down tube opposite to said first and second connectors.

4. The bicycle frame as claimed in Claim 3, wherein said head tube has a pair of said connection tubes projecting from said tube body and connected respectively to said cross bar and said down tube, said head tube being made by said process, in which said tube blank is substantially straight, said tube blank being hydraulically formed into a pair of said expanded wall parts which are machined to form said pair of said connection tubes.

5. The bicycle frame as claimed in Claim 3, wherein said frame parts further comprise a seat stay having said connection tube connected to said first connector, and a chain stay having said connection tube connected to said second connector, at least one of said seat and chain stays being made by said process, in which said process further includes the step of bending said tube blank to form two substantially parallel tube sections and a turn between said tube sections, said tube blank being hydraulically formed such that said expanded wall part projects from said turn away from said tube sections, said expanded wall part being machined to form said connection tube.

6. The bicycle frame as claimed in Claim 1, wherein said frame parts comprise a one-piece unitary unit composed of a cross bar, a down tube, and a head tube, said one-piece unitary unit being formed via said process, in which said process further includes the step of bending said tube blank to form two tube sections which form an acute angle therebetween and a turn between said tube sections, said tube blank being hydraulically formed such that said tube sections are

formed into said cross bar and said down tube and such that said expanded wall part projects from said turn away from said tube sections to form said head tube, said expanded wall part being machined to form two openings at two opposite ends of said expanded wall part, which are opposed to one another along a direction transverse to said tube sections.

7. The bicycle frame as claimed in Claim 6, wherein said one-piece unitary unit further includes an insert-tube fitted inside said expanded wall part along said direction.

8. The bicycle frame as claimed in Claim 5, wherein said first connector is formed by said process and includes two of said connection tubes connected respectively to said seat stay and said cross bar.

9. The bicycle frame as claimed in Claim 5, wherein said second connector is formed by said process and includes three of said connection tubes connected respectively to said chain stay, said seat tube and said down tube.